

# PATENT ABSTRACTS OF JAPAN

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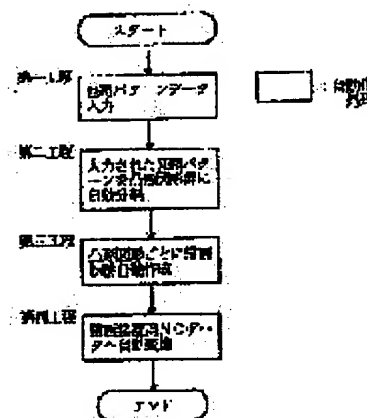
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(54) METHOD FOR FORMING NC DATA FOR THICK FILM CIRCUIT PLOTTING DEVICE

(57)Abstract:

PURPOSE: To improve the automation rate of forming processing of NC data for a thick film circuit plotting device, to reduce worker's burden and to shorten the processing time of the whole data forming process.

CONSTITUTION: An NC data forming process is automated by characterizing it by the shown 2nd process for checking the turning directions of respective vertexes of the tangents of respective sides of a closed graphic formed by segments, circular arc curves expanded to the outside, or both of them as sides by starting the check from an optional vertex of the closed graphic, successively circulating respective vertexes along the outline of a circuit pattern constituted of the closed graphic, determining a vertex whose turning direction is inverted as a dividing point, dividing the closed graphic into a projected graphics by a straight line connecting the dividing point to the initial start vertex, restarting the check by determining the dividing point as the succeeding start point, finding out the succeeding dividing point, dividing the graphic into projected graphics, repeating the dividing operation up to return to the initial start point.



## LEGAL STATUS

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[Effect of the Invention] According to the present invention, as described above, the following advantages are obtained. For a thick film circuit pattern which is constituted by a closed graphic whose sides are formed by segments, circular arc curves expanded to the outside, or both of them, the closed graphic accounting for a large part of circuit patterns to be plotted, or which is constituted by superimposition of the closed graphic and a strip-like graphic having contour lines formed by parallel lines, the closed graphic can be divided into projected graphics based on the simple rule described above, and any straight line connecting arbitrary two lines inside each of the projected graphics does not extend to the outside of the graphic. It is therefore possible to automatically divide a circuit pattern into projected graphics, and to automatically apply a paste so as to fully cover the projected graphics and the strip-like graphic along a plotting locus by a one-stroke drawing.